

24
Work Order ID 75396

75396

Page 1

October 21 11:42:06 AM

Item ID: D206-642-151

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Replacement Skidtube

Start Date: 21/10/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 02/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MLJ Date: 11/10/21 Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr | Revision Nbr |
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|-------|---|
| D3804 | A |
|-------|---|

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| IIN-D206-642 | O |
|--------------|---|

100

0.00

100

DOCUMENT CONTROL

DC

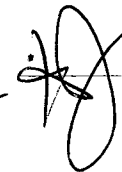
Memo

0.00

Document Control

Photocopy bluefile & type labels per PPP D206-642-151

CHG001

NA 

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

110

0.00

110

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Deburr Fwd edge of tube

2- Remove ridge on inside of Fwd edge of tube as per Dwg D3804

3-Weld Fwd Cap as per Dwg D3804. Use aluminum rod. Grind D2647 to fit as required.

Pick:

Qty Part Number Description Batch

A/R Aluminum Rod *M111884/M118735*

4-Grind weld flush to cap on top surface only.

5-Cut Aft end as per dwg D3804 from front of tube and Deburr

6-Remove inner indexing ridge on Aft end of skidtube as per Dwg D3804

7-Open holes for Aft end cap as per Dwg D3804 with #30 Drill Bit using DT8025.

8-Drill pilot holes using Dt8166 & DT8169D & DT9771.

9-Locate DT8732 from inner Aft saddle hole & 3rd crossbolt hole. Insert D3286-1 doubler using DT8732 & D206-642-241-T1, then locating doubler off of 3/16" holes, cleco DT8732 & doubler leaving DT8732 for added support.

10- Drill D3286-1 doubler rivet holes in tube using # 30 drill, spot drilling doubler at the same time.

SAD 11-11-15

BE 11-11-16

SAD 11/11/16

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Run Start ***NR1***

Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

11-Working from the center out, drill # 30 holes into D3286-1 doubler. Cleco each hole as it is being drilled. Verify angle of holes to accommodate rivet heads.

12-Remove 3/16" cleco's only and open GHW holes to Ø0.500" as per Dwg D3804.

13-Remove D3286-1 doublers, identify orientation, deburr, then attach them to the workorder

14-Remove indexing edge using DT8741 as per Dwg D3804

15-C'sink GHW rivet holes as per Dwg D3804

16- Open Aft cap hole #6.
****no wearplate holes for this skidtube****

17-Deburr tube and blow out chips from inside the tube

120 QC6- Inspect dimensions to drawing

0.00

120

QC

Memo

0.00

Quality Control

S. 11/17

SAP 11-11-16

DL 11/11/17

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Stop ***NR2***

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|--------------------------------|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 140 | Chemical Conversion Coat per QSI005 4.1 | 0.00 | | | | | | | |
| *140* | | | | | | | | | |
| HandFinish | Memo | 0.00 | | | | | | | |
| Hand Finishing | | | | | | | | | |
| 150 | QC3- Inspect Part Finish | 0.00 | | | | | | | |
| *150* | | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |
| 160 | Skidtubes | 0.00 | | | | | | | |
| *160* | | | | | | | | | |
| Skidtubes | Memo | 0.00 | | | | | | | |
| Skidtubes | 1-Open holes to finished size as per Dwg D3804, (without cutting fluid) | | | | | | | | |
| | 2-C'sink crossbolt spacer holes as per Dwg D3804(without cutting fluid) | | | | | | | | |
| | 3-Deburr and blow out all chips from inside the tube | | | | | | | | |

TW 11-11-17

SAD 11-11-17

11/11/17

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Required Date: 02/11/2011 Req'd Qty: 1.00

1

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

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Stop ***NR2***

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|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

170

QC6- Inspect dimensions to drawing

0.00

170

QC

Memo

0.00

Quality Control

1 0 BEH-11-17

180

Skidtubes

0.00

180

Skidtubes

Memo

0.00

Skidtubes

1-Locate, install and rivet doublers as per Dwg D3804. Micro-shave rivets as required

DE 11/11/17

2-Bond D2654-1 web in place as per QSI 015. Ensure holes line up. Allow 12

Hrs. cure time before cutting

Start Date: 11/11/17 Time: 4:05

Finish Date: 11/11/20 Time: 10:00

Pick:

Qty Part Number Description Batch

A/RSikaflex-291 119399

Sikaflex expire date: 12/08/13

DE 11/11/17

| W/O: | | WORK ORDER CHANGES | | | | | |
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75396

October-21-11 11:42:06 AM

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 21/10/2011 **Start Qty:** 1.00

*** 1 ***

Cust Item ID:

Required Date: 02/11/2011 **Req'd Qty:** 1.00

*** 1 ***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Operation Description

Set Up/ Run Hours

Tool ID

Tool #**Plan
Code**

**Accept
Qty**

Reject
QtyReject
Number

**Insp.
Stamp**

190

QC5- Inspect part completeness to step on W/O

0.00

190

QC

Memo

0.00

Quality Control

1 0 BE11-11-20

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Stop *NS2*

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Start Date: 21/10/2011 **Start Qty:** 1.00

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Cust Item ID:

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Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Operation Description

Set Up/ Run Hours

| Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---------|--------|-----------|------------|------------|---------------|-------------|
|---------|--------|-----------|------------|------------|---------------|-------------|

200

0.00

200

Skidtubes

0.00

Skidtubes

Skidtubes

Memo

1-remove alodine from around hole and prepare for welding

2-Prep per QSI 005 and Insert D2649 crossbolt spacers. Weld as per QSI 004 and Dwg D3804. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod.

Pick:

[illegible]

A/R Aluminum Rod 0117889

3-Grind welds flush as per Dwg D3804.

4-Using DT8733, insert (2) D3286-3 spacers as per QSI 004 and Dwg D3804. Remember to back drill each hole to Ø0.402" before welding other side. Use SS rod as required.

A/RSS Rod *NONE*

5-Counterbore 5/16" x 0.750" deep except 7th hole from Aft end as per Dwg D3804. Deburr

7 BEN/H/20

SAD 11-11-22 (V)

BE 11-11-22

DP 11-11-22

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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NOTE: Date & initial all entries

Quality Control

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NR1

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Tooling:

Date:

Stop

NR2

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

230

QC5- Inspect part completeness to step on W/O

0.00

230

QC

Memo

0.00

Quality Control

240

Pressure Wash per QSI005 4.3

0.00

240

HandFinish

Memo

0.00

Hand Finishing

250

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

250

Powdercoat

Memo

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

7:50
320 OF
8:20

1X M-11/11/25

MU8439

| W/O: | | WORK ORDER CHANGES | | | | | |
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|--------------------------------|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 260 | QC3- Inspect Part Finish | 0.00 | | | | | | | |
| *260* | | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |
| | | | | | | | | | |
| 270 | HandFinishing | 0.00 | | | | | | | |
| *270* | | | | | | | | | |
| HandFinish | Memo | 0.00 | | | | | | | |
| Hand Finishing | 1-Install D2651-3 O-Rings on D2651-1 plugs with Petroleum Jelly and install plugs as per Dwg D3804. Clean excess adhesive. | | | | | | | | |

1RH ϕ M 11/12/01

1RH ϕ M 11/12/01

RH

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NOTE: Date & initial all entries

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Stop *NR2*

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Sequence ID/
Work Center ID

Operation Description

Set Up/ Run Hours

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

**Reject
Qty**

Reject
Number

**Insp.
Stamp**

280

0.00

280

HandFinishing

0.00

HandFinish

Memo

Hand Finishing

✓ 1-Install D2646 Aft Cap and seal with Sikaflex. Clean excess adhesive
A/R Sikaflex-291 1119443
Sikaflex expire date: 12/01

2- Install wearplate as per dwg

2-Wing Walk as per Dwg D3804 and QSI 005 4.4
Batch: 14118988

290

QC3- Inspect Part Finish

0.00

290

QC

Memo

0.00

Quality Control

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| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 75396

75396

Page 12

October-21-11 11:42:06 AM

Item ID: D206-642-151

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Replacement Skidtube

Start Date: 21/10/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 02/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Run Start

NR1

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Stop

NR2

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 300 | QC5- Inspect part completeness to step on W/O | 0.00 | | | | | | | |
| *300* | | | | | | | | | |
| QC | Memo | 0.00 | | | | x/ | | | |
| Quality Control | | | | | | RH | | | |
| 310 | Packaging | 0.00 | | | | | | | |
| *310* | | | | | | | | | |
| Packaging | Memo | 0.00 | | | | | | | |
| Packaging | Identify and pack for shipping as per PPP D206-642-151 | | | | | | | | |
| | Location: _____ | | | | | | | | |
| | PPP Rev: _____ | | | | | | | | |
| 320 | QC21- Final Inspection - Work Order Release | 0.00 | | | | | | | |
| *320* | | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

8/11/12/08

PPP 75705

11/12/13

11/12/13

11/12/09

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

October-21-11 11:42:11 AM

Work Order ID: 75396

75396

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 21/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 10.12.08 PER IIN REV.N DD VERF:EC
REV:B 11.09.16 PER IIN REV.O DD VERF:EC

IPP

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|

| | | | | | | | | | | | | | |
|------------------------|--|--------------|----|--|--|-----|------|---------|---|---|--|--|--|
| D2620 | | Manufactured | No | | | 110 | Each | 13.0000 | 1 | 1 | | | |
| *D2620* | | | | | | | | | | | | | |
| Skidtube, 206 Skidtube | | | | | | | | | | | | | |

**

320 11-11-15

Location

Loc Qty

Loc Code

LG

13

71616

3

71617

6

73783

1

73785

1

73786

2

375 472

(1)

D2647

Manufactured No

110

Each

199.0000

1

1

D2647

Cap

**

BE11-11-16

Location

Loc Qty

Loc Code

LG002

199

55352

4

71171

11

73826

184

1

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

Page 2

October-21-11 11:42:11 AM

Work Order ID: 75396

75396

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 21/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

CR3212-4-04

Purchased

No

180

Each

18,966.00

52

52

CR3212-4-04

Cherry Rivet

**

Location

Loc Qty

Loc Code

ST311

150

(53)

116471

78

117816

3

118686

1

118840

68

st510

10000

119075

10000

ST516

8816

119017

8816

D2654-1

Manufactured

No

180

Each

4.0000

1

1

D2654-1

Web

**

Location

Loc Qty

Loc Code

LG

4

73794

4

D3286-1

Manufactured

No

180

Each

110.0000

2

2

D3286-1

Doubler

**

Location

Loc Qty

Loc Code

LG002

110

74111

22

74441

88

October-21-11 11:42:11 AM

Shop Packet Print

Page 2

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Picklist Print

Page 3

October-21-11 11:42:11 AM

Work Order ID: 75396

75396

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 21/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured No

200

Each

1,184.000

19

19

D2649

Cross Bolt Spacer

*BE 11/1/20
B 73858 x19*

Location

Loc Qty

Loc Code

LG

617

68224

2

71355

2

72704

2

72841

11

73855

600

LG001

567

65317

1

68507

11

73390

8

73857

21

73860

526

D3286-3

Manufactured No

200

Each

101.0000

2

2

D3286-3

Spacer

*BE 11/1/22
B 74870 x2*

Location

Loc Qty

Loc Code

LG001

101

74117

21

74439

80

D2680-041

Manufactured No

210

Each

99.0000

1

1

D2680-041

Nut Plate

(1)

B 11/11/22

Location

Loc Qty

Loc Code

LG

4

73334

4

ST020

95

73854

95

October-21-11 11:42:11 AM

Shop Packet Print

Page 3

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
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NOTE: Date & initial all entries

Picklist Print

Page 4

October-21-11 11:42:11 AM

Work Order ID: 75396

75396

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 21/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

CR3212-4-03

Purchased

No

210

Each

2,010.000

2

2

CR3212-4-03

Cherry Rivet

**

(2)

BB 11/11/22

Location

Loc Qty

Loc Code

FP-B

2

110139

2

ST311

1008

114859

1008

ST318

1000

119017

1000

AN960JD416

NAS1149D0463J

Purchased

No

210

Each

0.0000

1

1

AN960JD416

Washer

**

1118384(x) 11/12/01

CCR264SS3-3

Purchased

No

210

Each

1,285.000

2

2

CCR264SS3-3

Cherry Rivet

**

(2)

BB 11/11/22

Location

Loc Qty

Loc Code

FP-B

2

113973

2

ST311

283

117849

283

ST317

1000

119017

1000

MS27039-4-06

Purchased

No

210

Each

433.0000

1

1

MS27039-4-06

Screw

**

11/12/01

Location

Loc Qty

Loc Code

ST292

433

119075

400

119124

33

VI

October-21-11 11:42:11 AM

Shop Packet Print

Page 4

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Picklist Print

October-21-11 11:42:11 AM

Work Order ID: 75396

75396

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 21/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

D2651-1 Manufactured No

270

Each

1,063.000

6

6

D2651-1

Plug

**

ll 11/12/01

Location

Loc Qty

Loc Code

fpa

2

69018

2

FP-A

1061

57869

1

66445

10

70839

2

71037

31

73827

1017

✓ 6

D2651-3 Manufactured No

270

Each

1,547.000

6

6

D2651-3

O-Ring

**

ll 11/12/01

Location

Loc Qty

Loc Code

FP-A

1547

61962

12

66956

30

73489

505

73828

1000

✓ 6

D3873-1 Manufactured No

280

Each

342.0000

14

14

D3873-1

Bushing

**

B75481 (x14) ll 11/12/01

Location

Loc Qty

Loc Code

ST088

342

64760

1

68247

4

73829

19

73831

318

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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NOTE: Date & initial all entries

Picklist Print

October-21-11 11:42:11 AM

Work Order ID: 75396

75396

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 21/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

D2646

Manufactured No

280

Each

91.0000

1

1

D2646

Aft Cap

B73825 (x1) HU 11/12/01

Location

Loc Qty

Loc Code

FP002

60

73294

60

FP004

17

68280

17

FP006

5

62678

5

FP-4

5

70945

1

71070

4

fp5

4

71038

4

D3805-041

Manufactured No

280

Each

0.0000

1

1

D3805-041

Wearplate Assembly Fwd, Low Gear

MS27039-1-08

Purchased No

280

Each

1,971.000

2

2

MS27039-1-08

Screw

1 BR 11-12-7

HU 11/12/01

Location

Loc Qty

Loc Code

ST291

1971

117423

155

118378

316

118910

500

119075

500

119109

500

VZ

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Picklist Print

Page 7

October-21-11 11:42:11 AM

Work Order ID: 75396

75396

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 21/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

280

Each

9,976.000

7

7

MS21042L3

Nut

**

u 11/12/01

Location

Loc Qty

Loc Code

ST300

976

117441

16

117885

87

118451

179

118927

694

ST516

6000

119017

6000

ST518

3000

119075

3000

✓7

D3805-045

Manufactured

No

280

Each

5.0000

1

1

D3805-045

Wearplate Assembly Aft, Low Gear

75493.

**

1 BR 11-12-7

Location

Loc Qty

Loc Code

FP

5

73817

5

AN960JD10L

NAS1149D0332J

Purchased

No

280

Each

0.0000

2

2

AN960JD10L

Washer

**

11118384 (x2) u 11/12/01

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

October-21-11 11:42:11 AM

Work Order ID: 75396

75396

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 21/10/2011

Required Date: 02/11/2011

Start Qty: 1.00

Required Qty: 1.00

AN3-37A Purchased No

280 Each 2,319.000 7 7

AN3-37A

** JU 11/12/01

Bolt

Location Loc Qty Loc Code

ST353 269

111668 169

118628 100

ST354 50

117619 50

ST518 2000

119086 2000

NAS1149D0363J Purchased No

280 Each 2,836.000 7 7

NAS1149D0363.J

** JU 11/12/01

Washer

Location Loc Qty Loc Code

ST298 2836

117601 218

118077 135

118612 483

118968 2000

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

| ITEM | Qty -041 | Qty -043 | Part Number | Description |
|------|-------------|-------------|--------------|---------------------------------|
| 1 | X | | D3804-041 | SKIDTUBE ASSEMBLY, 206 A/B LOW |
| 2 | | X | D3804-043 | SKIDTUBE ASSEMBLY, 206 A/B HIGH |
| 5 | 1 | 1 | D2600-1-160 | EXTRUSION |
| 6 | 1 | 1 | D2646 | AFT CAP |
| 7 | 1 | 1 | D2647 | CAP |
| 8 | 19 | 20 | D2649 | CROSS BOLT SPACER |
| 9 | 6 | 8 | D2651-1 | PLUG |
| 10 | 6 | 8 | D2651-3 | O-RING |
| 11 | | 1 | D2654-3 | WEB |
| 12 | 1 | | D2654-1 | WEB |
| 13 | 1 | 1 | D2680-041 | NUT PLATE |
| 14 | 2 | 2 | D3286-1 | DOUBLER |
| 15 | 2 | 2 | D3286-3 | STUD |
| 21 | 2 | 2 | AN960JD10L | WASHER |
| 22 | 1 | 1 | AN960JD416 | WASHER |
| 23 | 2 | 2 | CCR264SS3-3 | RIVET |
| 24 | 2 | 2 | CR3212-4-03 | RIVET |
| 25 | 52 | 52 | CR3212-4-04 | RIVET |
| 26 | 2 | 2 | MS27039-1-08 | SCREW |
| 27 | 1 | 1 | MS27039-4-06 | SCREW |

NOTES

- 1) MATERIAL: N/A
- 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 7) IDENTIFICATION: NONE
- 8) WEIGHT: 12.5 lb
- 9) WELD PER DART QSI 004
- 10) BENDING: DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 11) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
- 12) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 75396 M.C.J
11/10/21

RELEASED
09.07.03
per ECR 09-536

| | | | |
|------------|-------------|----|----------|
| A | NEW ISSUE | MB | 08.07.07 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | 99 | | |
| DRAWN | | | |
| CHECKED | | | |
| MFG. APPR. | | | |
| APPROVED | | | |
| DE APPR. | | | |
| DATE | 08.07.07 | | |

DART AEROSPACE USA, INC
PORT HADLOCK, WA

DRAWING NO. **D3804** REV. **A**
SHEET 1 OF 5

TITLE **SKIDTUBE ASSEMBLY, 206A/B** SCALE **NTS**

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| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

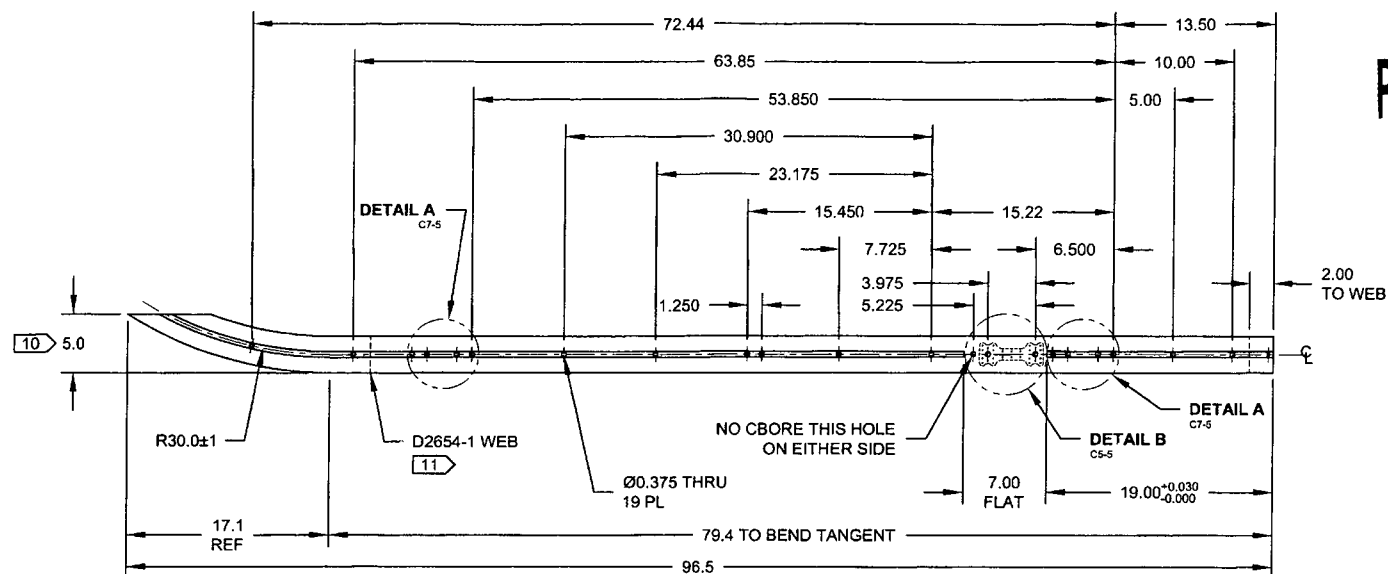
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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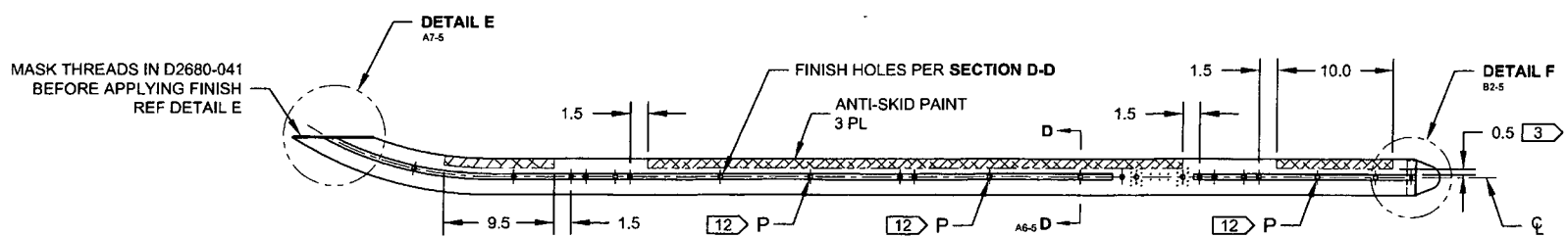
NOTE: Date & initial all entries

75396

RELEASED
09.13.03



D3804-041 BENDING/DRILLING DETAIL



D3804-041 ASSEMBLY/FINISHING DETAIL

| | | | |
|------------|----------|---|--------------|
| DESIGN | 91 | DART AEROSPACE USA, INC | |
| DRAWN | 1 | PORT HADLOCK, WA | |
| CHECKED | 6 | DRAWING NO. | REV. A |
| MFG. APPR. | 8 | D3804 | SHEET 2 OF 5 |
| APPROVED | 19 | TITLE | SCALE |
| DE APPR. | 11 | SKIDTUBE ASSEMBLY, 206A/B | NTS |
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| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

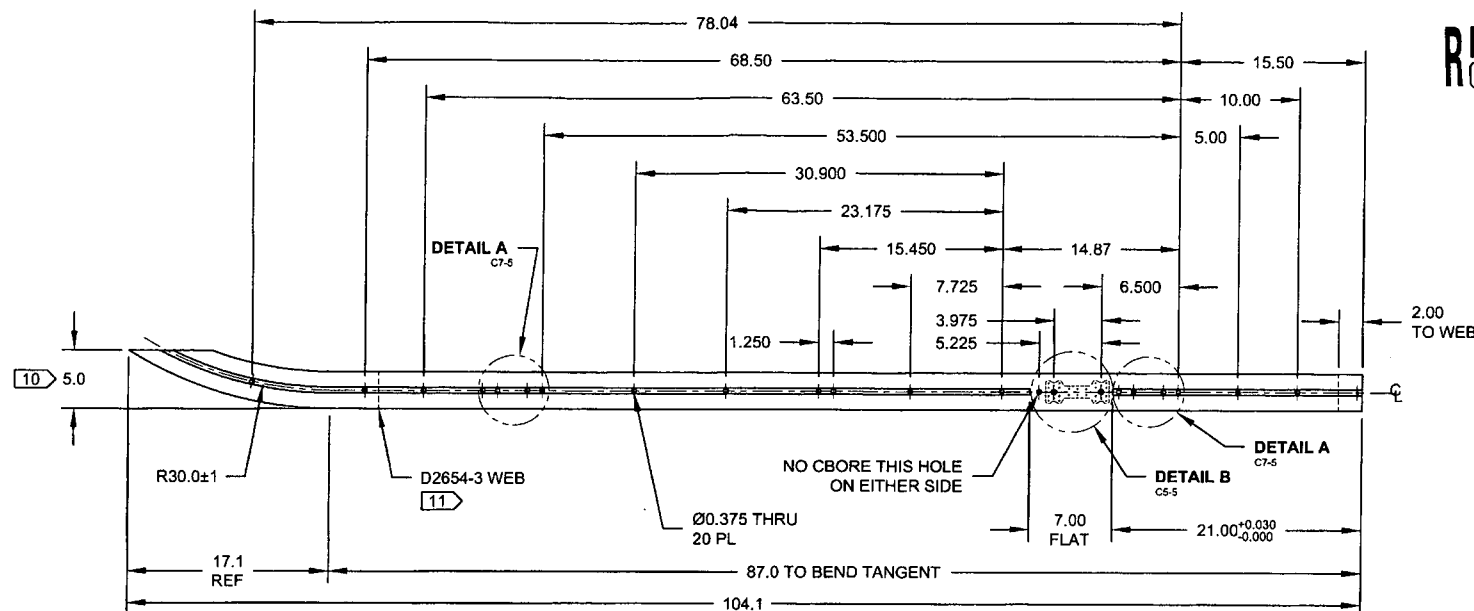
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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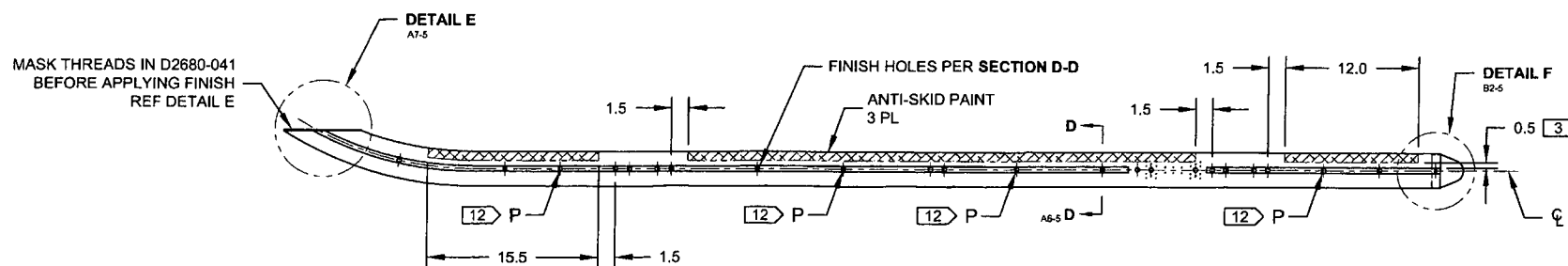
NOTE: Date & initial all entries

75396

RELEASED
09.03.03



D3804-043 BENDING/DRILLING DETAIL



D3804-043 ASSEMBLY/FINISHING DETAIL

| | | | |
|------------|----------|--|--------------|
| DESIGN | 97 | DART AEROSPACE USA, INC | |
| DRAWN | J | PORT HADLOCK, WA | |
| CHECKED | 97 | DRAWING NO. | REV. |
| MFG. APPR. | BE | D3804 | SHEET 3 OF 5 |
| APPROVED | 97 | TITLE | SCALE |
| DE APPR. | 97 | SKIDTUBE ASSEMBLY, 206A/B | NTS |
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| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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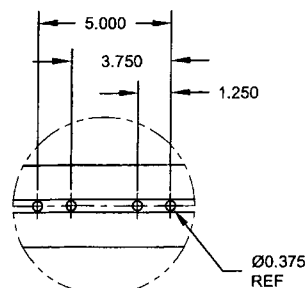
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

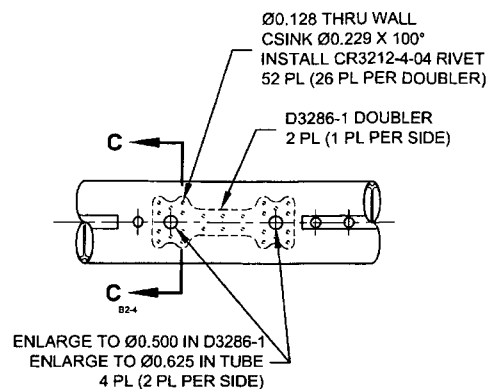
| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

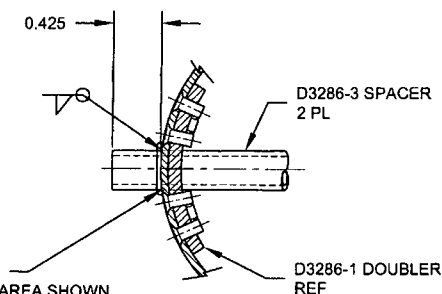
75396

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09.03.07

DETAIL A
D6-2
C2-2
D6-3
C2-3
SCALE NONE

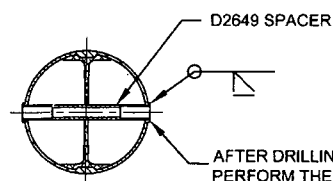


DETAIL B
C3-2
C3-3
SCALE NONE



- TO INSTALL D3286-1/-3:
1. GRIND OFF FLANGE IN AREA SHOWN, FLUSH WITH OUTSIDE SURFACE OF ROUND TUBE
 2. LOCATE & DRILL D3286-1 DOUBLER USING DT3286-1T1
 3. ENLARGE HOLES IN D3286-1 TO Ø0.500
 4. ENLARGE HOLES IN TUBE TO Ø0.625 AND CHAMFER HOLE 0.03 X 45°
 5. RIVET D3286-1 TO TUBE
 6. INSERT D3286-3 SPACER
 7. WELD IN PLACE AND GRIND FLUSH

SECTION C-C
C6-4
PARTIAL SECTION
SCALE NONE



- AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:
1. CHAMFER HOLE 0.03 X 45°
 2. INSERT D2649 SPACER
 3. WELD INTO PLACE AND GRIND FLUSH
 4. CBORE TO Ø0.313 X 0.75 DP (EXCEPT WHERE INDICATED)

SECTION D-D
A4-2
A4-3
FOR Ø0.375 HOLES ONLY
SCALE NONE

| | | | |
|------------|----------|--|--------------|
| DESIGN | 97 | DART AEROSPACE USA, INC | |
| DRAWN | 97 | PORT HADLOCK, WA | |
| CHECKED | 97 | DRAWING NO. | REV. A |
| MFG. APPR. | 97 | D3804 | SHEET 4 OF 5 |
| APPROVED | 97 | TITLE | SCALE |
| DE APPR. | 97 | SKIDTUBE ASSEMBLY, 206A/B | NTS |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

75396

RELEASED
97 09 03 03

CCR264SS3-3
RIVET
2 PL

CR3212-4-03 RIVET
2 PL

VIEW G-G
SCALE NONE A7-5

D2647 CAP, TO INSTALL:
1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D2647 (TRIM AS REQD)
4. WELD D2647 IN PLACE
5. GRIND FLUSH
6. RIVET D2680-041 NUT PLATE
IN PLACE

MS27039-4-06 SCREW
AN960JD416 WASHER
D2680-041
NUTPLATE

1.0 REMOVE RIDGE ON
INSIDE OF SKIDTUBE
LEAVE 0.070 MIN.

1/16

DETAIL E
SCALE NONE B7-2
B7-3

0.400

END OF WEB

BORE OUT END
OF SKIDTUBE
TO 0.75 DEPTH
AND 0.070 WALL

SEAL WITH
SIKAFLEX-241/291

D2646 AFT CAP

Ø0.204
REF

MS27039-1-08 SCREW
AN960JD10L WASHER
2 PL

DETAIL F
SCALE NONE B2-2
B2-3

| | | | |
|------------|----------|--|--------------|
| DESIGN | 97 | DART AEROSPACE USA, INC | |
| DRAWN | 97 | PORT HADLOCK, WA | |
| CHECKED | 97 | DRAWING NO. | REV. A |
| MFG. APPR. | 97 | D3804 | SHEET 5 OF 5 |
| APPROVED | 97 | TITLE | SCALE |
| DE APPR. | 97 | SKIDTUBE ASSEMBLY, 206A/B | NTS |
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| | | | | | | | | |

NOTE: Date & initial all entries

NO. 274

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 75391
Part number: D206 642 151
Description: D206 skid tube
Welding Process: Tig ☒ Mig ☐
Base material: Aluminum
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual: pass ☒ fail ☐
Penetration: pass ☒ fail ☐

UNACCEPTABLE

Cracks: pass ☒ fail ☐
Undercut: pass ☒ fail ☐
Pin holes: pass ☒ fail ☐
Overlap (cold lap): pass ☒ fail ☐
Porosity (surface): pass ☒ fail ☐
Coloration: pass ☒ fail ☐

Qualifier Sal Hum Date of Test Coupon 11.11.18

Welder Barclay Elliott Date of Test Coupon 11.11.18

The above named individual is qualified in accordance with AWS D17.1.2001 to weld